



RESEARCH

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- 02 From the Co-ordinator - Anthony Bruton
- 04 Visible pedagogy in the adult ESL classroom - Anne Burns
- 08 Common sense interpretations of quantified results before applications? Anthony Bruton
- 11 Researching the influence of language embedded in the pre-task phase on task performance - Theron Muller
- 15 Exploring student engagement dynamics: Initiating model-building from a case study - Duane Kindt
- 18 Research in peril: Constraints of conducting research in the Malaysia's education context - Habsah Binti Hussin
- 23 My links - Ana d'Almeida

Exploring student engagement dynamics: Initiating model-building from a case study

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This report summarizes a study that employed procedures from *Grounded Theory* (GT) (Strauss & Corbin, 1998) and *qualitative data analysis software* (QDAS) (Weitzman, 2000) to examine student engagement in an oral communication course at a private Japanese university. Using textual data from response journals, called *action logs* (Murphey, 1993) (see Appendix 1), and exit interviews, engagement factors and their interrelations were identified and coded using QDAS. This coding helped analyze engagement propensities and factors influencing engagement, which contributed to a *Model of student engagement dynamics*. Besides showing the benefits of QDAS, this study illustrates the complexity of student engagement and the primacy of feedback in raising participants' awareness and restructuring of engagement propensities.

Background to the Study

QDAS are computer programs designed to assist in analyzing qualitative data (Richards, 2002). The software used in this study, NVivo (Richards, 2006), helped categorize interview data. Basit (2003: 144) describes these categories or codes as "tags or labels for allocating units of meaning to the descriptive or inferential information compiled during a study." Engagement factor categories were developed from the data, combining a *grounded* approach (Strauss & Corbin, 1998) and *a priori* categories supplied by Williams and Burden (1997). Six *internal categories* (Beliefs, Interest, Courage, Ability, Perceived Value and Sense of agency) and 6 *external categories* (Materials/activities, Peers, Teacher, Other people, Learning environment, Greater context) were used.

To illustrate the QDAS coding process, the text, "I enjoyed talking with partners," could be linked to categories representing factors such as *Interest* ("enjoyed") or *Peers* ("partners"). Once the text is coded, searches can be conducted showing the instances when one, the other, or both codes (called the *intersection*) occur.

In this study, after coding for the 12 engagement factors, the NVivo intersection function was used to derive *Engagement Factor Intersections* (EFIs), pinpointing significant interrelations (see Appendix 2 for exemplary intersections). Strauss and Corbin's (1998) *axial coding*, which relate categories around a central theme (axis), was then applied to explore a predominant theme *Meeting expectations*, providing a detailed description of one student's (Kumi, pseudonym) engagement. The action log and interview text was coded for the 5 fundamental elements of GT axial coding, which are: 1) *formative events/causal conditions*, 2) *intervening conditions/factor interrelations*, 3) *adaptive strategies*, 4) *actions and interactions*, and 5) *consequences/engagement outcomes* (reproduced in Gibbs, 2002: 171). EFIs coded for each of these elements were then used to describe Kumi's engagement and engagement propensities, leading to a *Model of student engagement dynamics*.

Analyzing Student Engagement

To study Kumi's engagement, a profile of her *Individual Engagement Propensity* at the beginning of the course was established. This profile was informed by her language learning history journal entry and general attitudes toward learning English in a classroom setting.

Formative Events and Initial Engagement Propensity

Using NVivo to code Kumi's *formative events* was informative, especially when looking at expectations in relation to active engagement in class activities. She wrote, for example, "I was full of much fear...a feeling of gloom entering the classroom. But...I made a little progress. Afresh, I've expected you to improve us" (action log, 4/14). Kumi had high expectations that contributed significantly to her emphasis on: 1) what others think of her and her ability, noting "I'm very poor at speaking English" and was "nervous...to show [my conversation] to the classmates" (4/21); 2) her image of herself as a "negative student" who was often "depressed"; and 3) the teacher as a change agent: "[I am expecting] you to improve us" (4/14).

Kumi's enthusiasm increased a couple of months before the course began when a friend talked to her about studying abroad. Kumi noted, "It came as a thunderbolt to me. Then, I reflected on my negative attitude....I think I could be more enthusiastic." Kumi also became aware of the influence of her peers: "I little imagined other's words would have an influence on my idea and life."

Kumi's initial engagement propensity, therefore, can be described as depending on positive influence from internal factors (*Courage*, "I could get used to them;" *Ability*, "I can be active") and external factors (*Teachers*, "highly praised for doing well;" *Peers*, "it was a turning point for me") that helped her feel she was reaching—or needed to reach—expectations.

Factor Interrelations, Adaptive Strategies, and Actions/Interactions

Since Kumi's engagement level was dependent on her mood, peers, and activities—all closely related to her expectations—her adaptive strategies varied. By the third class, Kumi indicated change, "I think you gradually made me relaxed" (4/17). The interrelation of factors, *Teacher* influencing *Courage* (T-C), is represented by Figure 1 (below). In all figures, time moves from left to right, though internal and external factor interrelations and individual and group propensities should not be seen as necessarily linear or the boundaries distinct.

"I think you gradually made me relaxed." Teacher impacting courage positively (T-C)

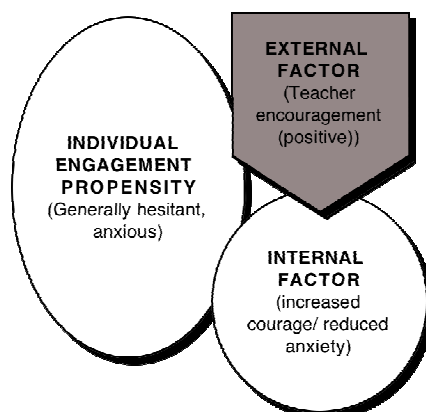


Figure 1: T-C positive interaction (time →)

Kumi placed the reason for her lessening anxiety on the teacher. My verbal comments and her reaction form a *positive* feedback loop, *Teacher* influencing *Courage* (displayed as T-C+).

Another example of the same relatively straightforward, linear-like structure of factor interactions, but with *negative* impact, involved *Materials* and *Courage* (M-C-). Kumi noted an unexpected reaction to a recording activity, "In the end, my anxiety was in vain" (4/21). In this instance, her expectations of the recording activity influenced her level of nervousness, and thus, her level of initial participation.

By the fourth Fishbowl—an activity in which 4 students in a center "bowl" engage in conversation while others

observe (Cholewinski, 1999)—Kumi's comments indicated that the class's level of engagement was also important to her. She noted, "it was really welcome that last fishbowl brought such a good result, though I couldn't do it" (6/26). This comment indicates that Kumi was attempting to be more positive, possibly to reach her perception of teacher and peer expectations. Consider the following: "I was in a good temper. So I could talk....I think temper has a great effect on the works in class. I have a day I can talk...and [days] I don't feel like join the class" (6/28).

Kumi described her lack of participation as dependent on her *Courage* and her success as dependent upon support of *Peers* and *Teacher* and the nature of the activities (*Materials*). It appears, however, that her participation depends on her success in reaching expectations.

Engagement outcomes and restructured engagement propensities

Although Kumi's comments indicate that her engagement propensity in the recording activity was altered by her experience, there was no evidence at the time that the adjusted propensity would apply to other activities. Kumi was able to record subsequent conversations with less nervousness, due in large part to her having experienced recording and realigning her expectations. In the first Fishbowl activity, she laments: "I couldn't go into the fishbowl....I couldn't take courage this time. I feel sorry" (4/26). This interaction shows the negative

effects of 2 external factors, *Materials* and *Peers*, on a single internal factor, *Courage*.

Feedback on Kumi's initial recording experience, such as encouragement and realigning expectations from the *Teacher* and *Peers* and her own awareness of the activity (*Materials*), made subsequent video recording easier: "I didn't feel embarrassed in spite of videoing. I think there isn't a difference between ordinary conversation and videoing" (5/7). Without feedback to compare to her expectations, Kumi may have retained a debilitating propensity to nervousness when videoing.

Displaying this dynamic, emergent phenomenon in a static model is challenging. Even at this limited level of interaction, the complexity of interrelationships between engagement factors and engagement propensities is apparent. Nevertheless, Figure 2 (below) displays a highly simplified model of this event.

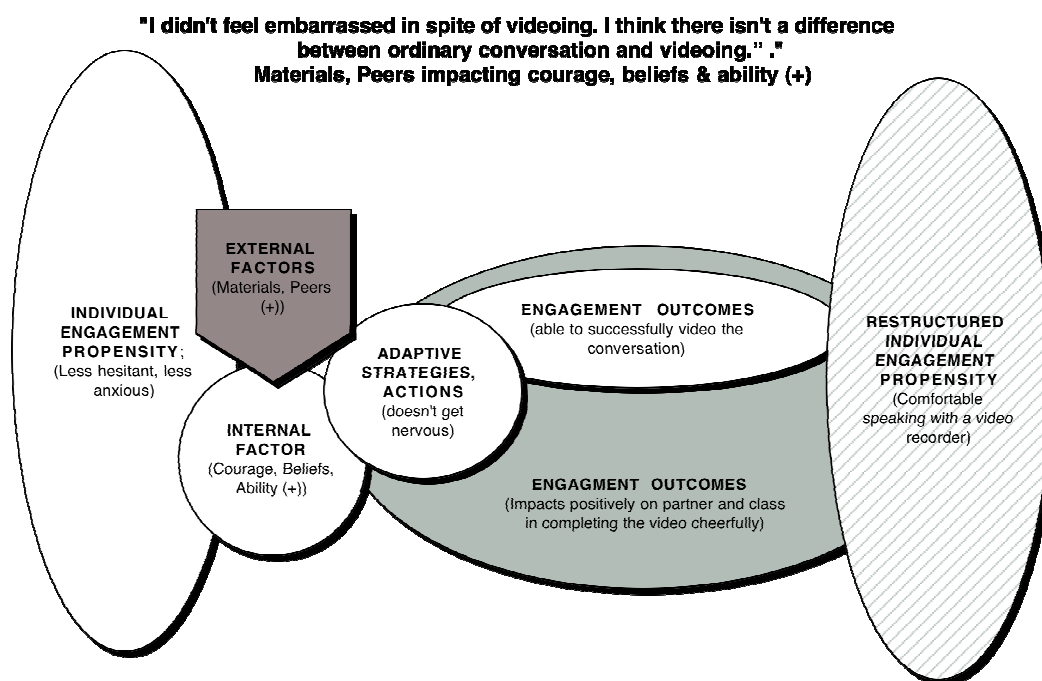


Figure 2: M-C, M-B, P-C, P-B positive interaction and resulting strategies, outcomes, and restructuring (time →)

Assuming Kumi's engagement propensity for recording had restructured, she began the videoing activity with a less hesitant, less anxious propensity. As the activity and Kumi's *Peers* positively influenced her *Courage*, *Beliefs* and *Ability*, she was able to video successfully. Feedback from *Materials*, *Peers*, and *Teacher* had

realigned her expectations and her subsequent success became a positive influence on her recording partner, and this restructuring in turn influenced the class propensity as well.

Since Kumi was experienced with recording by this time, and receiving praise—“[a classmate] said to me, ‘I think your English has improved.’ I was very happy to hear that” (5/26)—her comment that her “uneasy feeling is getting clear day by day” (5/26) might indicate that her propensity had restructured to support greater participation in all class activities. In the next Fishbowl activity, however, Kumi again did not participate. She noted, “I can’t take courage without holding myself in readiness for fishbowl” (6/5). Though Kumi did not enter, she supported its use: “Fishbowl makes me nervous, but plays an important role in English study” (5/22).

It appears that Kumi began the class (5/22) with a general propensity to be less hesitant in activities except the Fishbowl, where the impact of perceived expectations was so strong that she avoided participating. The Fishbowl put her in a situation where *Materials* and *Peers* had such a powerful impact on her *Courage*, *Beliefs*, *Ability*, and *Value* that she could not participate. The external factors, Fishbowl and classmates, resulted in Kumi’s increased nervousness, but she still believed that the activity was valuable for increasing her language skills.

Final restructured engagement propensity

At the beginning of the course, Kumi believed—and continued to believe—that her English ability was inferior to many of her classmates:

I always compared myself with [active students] so doing that I was very depressed always. I have to make more confident and make more effort....They are friends who engage me to be active but on the other hand they are a burden. It’s a bad view but... (Interview)

Though some restructuring occurred, Kumi’s expectations remained unrealistically high, comparing herself to the most fluent and active students in the class. When not comparing herself to others, Kumi’s self-evaluations tended to be more positive. She noted that in the second cassette recording she “was a little nervous...but compared to the first...it was clearly less” (Interview). Her decrease in nervousness was accompanied by what she described as “the biggest change for me.”

Model of student engagement dynamics

Building on insights from the analysis of engagement dynamics in this case study, a *Model of student engagement dynamics* is presented below (Figure 3) as a point of departure for increasing educators’ awareness of classroom engagement dynamics and for future exploration of the complexity of student engagement.

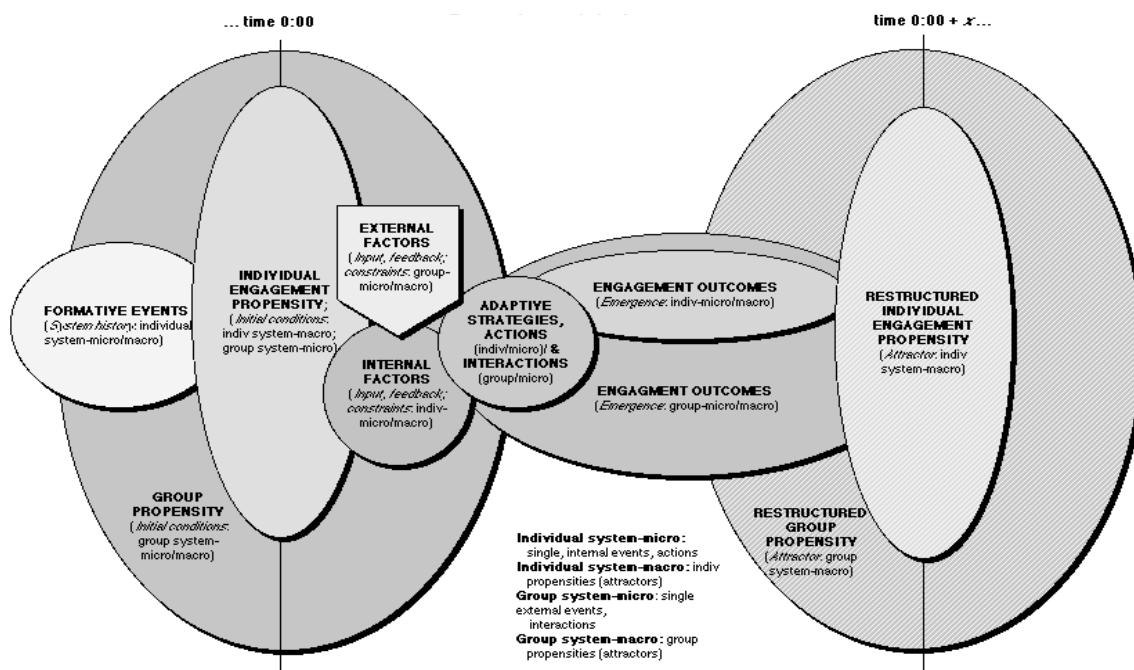


Figure 3: Model of student engagement dynamics (time →)

Moving from left to right, *causal conditions/formative events* contribute to individual engagement propensities, which contribute to the *group engagement propensity*. Since the moment a class starts interactions cause propensities to restructure, the stasis point merely indicates *initial engagement propensities*. For every individual in a learning system other participants are potential positive and negative external factors. Thus, individuals' internal factors can become external factors for others. Even so, external factors are displayed as catalysts (*input, feedback*) influencing internal factors that result in individuals employing *adaptive strategies, acting, and interacting*. *Feedback*, whether immediate or delayed, oral or written, stimulates interaction of engagement factors leading to individuals applying adaptive strategies. Using these adaptive strategies results in actions that lead to *individual engagement outcomes*. These individual outcomes interact and combine in *group engagement outcomes* that in turn influence *restructuring* of individual and group engagement propensities.

Conclusion

This study employed QDAS to explore the qualitative aspects of student engagement in an oral communication class. Twelve predominant engagement factors emerged that were coded in the journal and interview texts. Subsequently following a GT procedure to examine a principle theme, *Meeting expectations*, a description of engagement factors and propensities was presented, leading to a *Model of student engagement dynamics*. Considering this model, the author promotes a view of engagement dynamics that begins with a perception of group engagement propensities based on experience and intuition that subsequently responds to qualitative feedback from individual interactions and remains open to constant restructuring of engagement propensities.

References

- Basit, T. N. (2003). Manual or electronic? The role of coding in qualitative data analysis. *Educational Research, 45*(2), 143-154.
- Cholewinski, M. (1999). Fishbowl: A speaking activity. *English Teaching Forum (TESOL), Oct-Dec*, 24-27.
- Gibbs, G. R. (2002). *Qualitative Data Analysis; Explorations with NVivo*. Buckingham: Open University Press.
- Murphey, T. (1993). Why don't teachers learn what learners learn? Taking the guesswork out with Action Logging. *English Teaching Forum*(January), 6-10.
- Richards, T. (2002). An intellectual history of NUD.IST and NVivo. *International Journal of Social Research Methodology, 5*(3), 199-214.
- Richards, T. (2006). NVivo 7. Melbourne: QSR International.
- Strauss, A. L., & Corbin, J. (1998). *Basics of Qualitative Research: Techniques and procedures for developing grounded theory* (2nd ed.). Thousand Oaks: Sage.
- Weitzman, E. (2000). Software and Qualitative Research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (2nd ed., pp. 803-820). Thousand Oaks: Sage.
- Williams, M., & Burden, R. L. (1997). *Psychology for Language Teachers: A social constructivist approach*. Cambridge: Cambridge University Press.